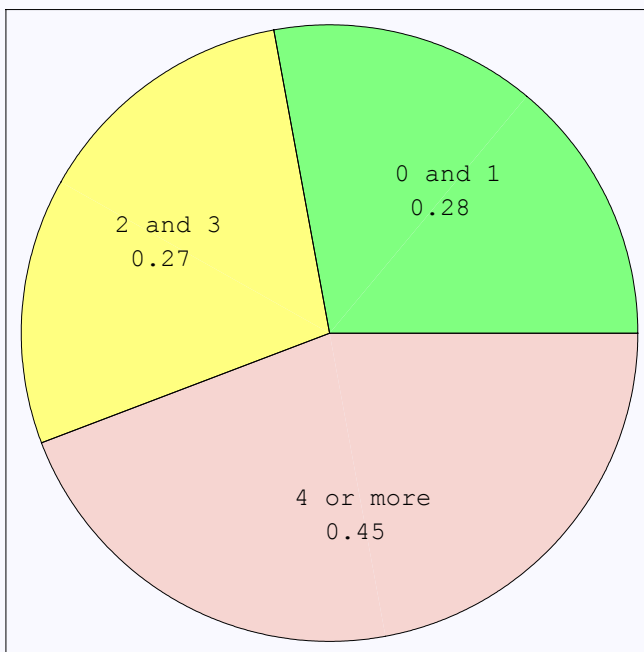# Iraq War Morbidity: US Military Fatalities

The Next Seven Days — Data through 07-Jul-07

Date	Estimated Fatalities	Chance of None	Chance of 4 or More
08-Jul-07	3.91	0.09	0.46
09-Jul-07	3.85	0.10	0.45
10-Jul-07	4.43	0.04	0.52
11-Jul-07	3.48	0.14	0.41
12-Jul-07	3.85	0.10	0.45
13-Jul-07	3.77	0.11	0.44
14-Jul-07	3.88	0.09	0.46
Total	27.20		

Chance of Various Daily Fatality Counts

0 and 1
0.28

2 and 3
0.27

4 or more
0.45

The Past Seven Days

Date	Reported	Estimate	Difference
01-Jul-07	7.00	3.85	3.15
02-Jul-07	1.00	3.82	-2.82
03-Jul-07	0.00	4.12	-4.12
04-Jul-07	3.00	4.22	-1.22
05-Jul-07	7.00	4.31	2.69
06-Jul-07	9.00	3.35	5.65
07-Jul-07	1.00	2.62	-1.62
Total	28.00	26.30	1.72

Report Created 11-Jul-07

ABOUT THESE STATISTICS

The truth is not in these numbers and graphics. What really counts is the loss of life, the damage to all those involved in or affected by this conflict, the destruction of human habitat and institutions, the destruction of the environment, and the waste of people's time and the earth's natural resources. War involves all that whether or not we think it is justified.

These statistics and graphics provide an indication of the current level of conflict based on reported US military fatalities. This particular record is used because it may well be the most accurate statistic about this war that is available to the general public. The fatality record, various detailed and summary reports, and the methodology used to construct the record can be found at www.icasualties.org.

Ordinary regularities of everyday life can be detected and measured. The mathematical patterns in this record are no more complex than the average family's checking account balance. To the extent that folks continue to do what they have been doing, the past tends to provide a decent basis for comparison.

The estimates presented on these pages are based on time series models that statistically compare past and recent history to establish some sense of whether the fatality rate is higher or lower given the time of the year and the relationship to the US electoral cycle and other reoccurring patterns in the fatality record.

If the estimates seem "off" or "wrong," it just means that what is going on now is somehow different than what went on during similar periods in the past. It is up to you to do what is necessary to understand the change in the conflict. These statistics can only indicate that it is likely that something has changed.
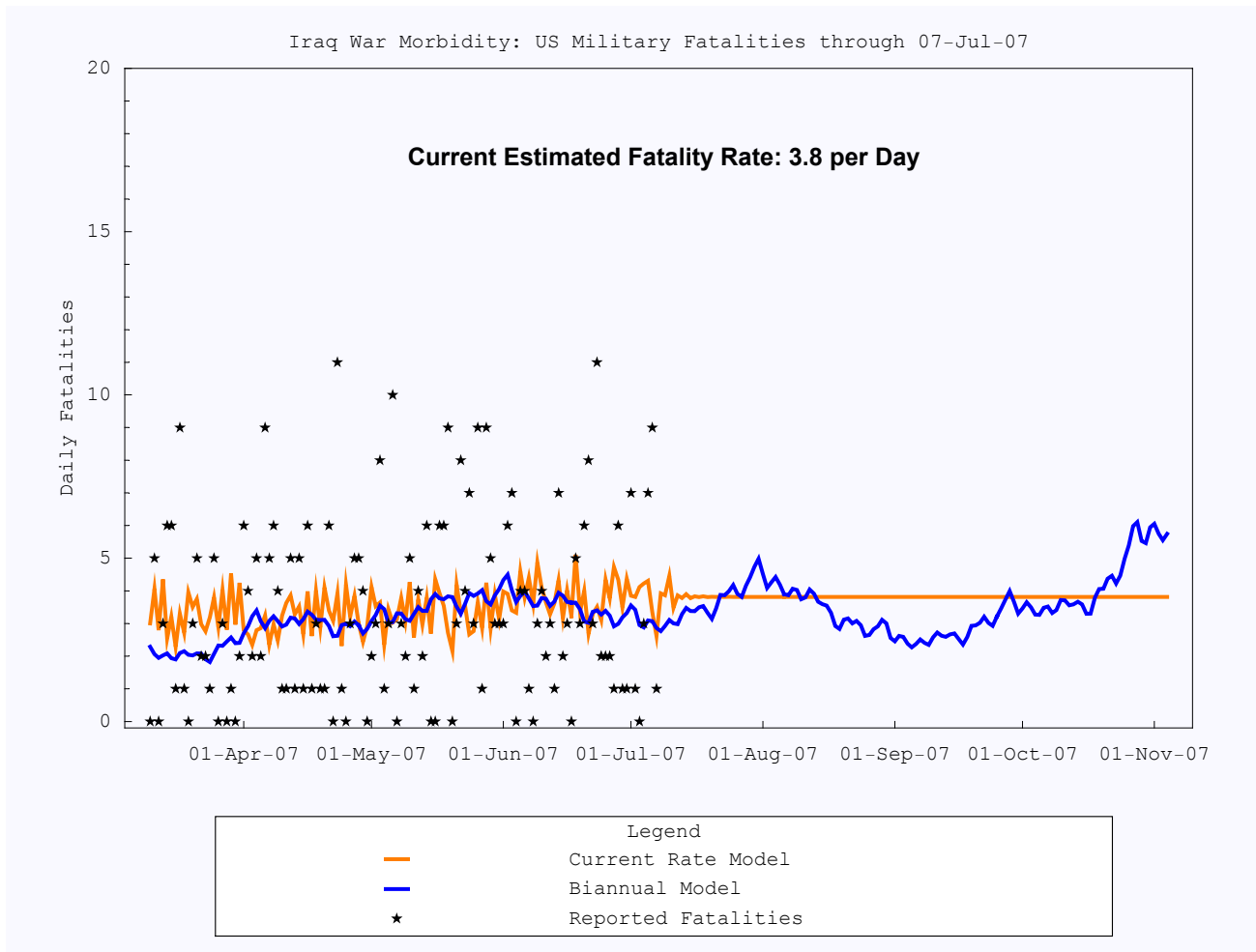
Iraq War Morbidity: US Military Fatalities

The Next and Past 120 Days — Data through 07-Jul-07

Note 1.1. The biannual model assumes 2007 fatalities will be 1,200 or less. Report Created 11-Jul-07

Note 1.2. The biannual model reflects reoccurring patterns in the record. The longest cycle is two years. Numerous shorter cycles within the two year period are also reflected. The ups and downs in the estimates reflect the average affect of the reoccurring phenomenon, e.g., seasonal weather and other natural and human behaviorial patterns, e.g., reckoning, tactical and logistics time-frames. 1529 days were used to estimate the biannual model parameters.

Note 1.3. The current rate model reflects the reoccuring pattern within a four day time span and closely follows the immediate level of fatalities. 120 days were used to estimate the current rate model parameters.

Note 1.4. The current rate model estimate for future days will always flatten out and become constant. The 'Current Estimated Fatality Rate' reflects that constant value. The biannual model estimate for future days provides an indication of how the fatality rate has fluctuated in the past during the calendar period shown.

Note 1.5. Comparison of the current rate model and biannual model estimates provides a indication of how closely current fatalities conform to historical patterns. The two estimates are not expected to precisely coincide but are generally similar. Differences should be interpreted in the context of current events.

Iraq War Morbidity: US Military Fatalities

2007 Fatalities by Month — Data through 07-Jul-07

Month	Reported	Estimate	Difference	P-Value	Days
Jan-2007	83	76.	7.	0.79	31
Feb-2007	80	72.	8.	0.57	28
Mar-2007	81	71.	10.	0.53	31
Apr-2007	104	90.	14.	0.37	30
May-2007	126	110.	16.	0.35	31
Jun-2007	101	107.	-6.	0.67	30
Jul-2007	28	22.	6.	0.54	7
--YTD-->	603	549.	54.	0.22	188
Jul-2007		87.			24
Aug-2007		108.			31
Sep-2007		85.			30
Oct-2007		128.			31
Nov-2007		139.			30
Dec-2007		104.			31
All-2007		1200.			365

Note 2.1. The estimates are from the biannual model. The assumed 2007 fatalities are 1,200.

Note 2.2. 1529 days were used to estimate the biannual model parameters. Report Created 11-Jul-07

Note 2.3. P-Values provide an indication of the significance of the difference between the estimated and reported values. P-Values will always fall between 0 and 1. '0' implies 'Very Unusual' while '0.5' implies 'Ordinary' and '1' implies 'Very Typical'. The P-Values will tend to fall evenly throughout the range. No specific P-Value is desirable or undesirable.

Past Years and the Chronic Rate Indicator

Year	2003	2004	2005	2006	2007	Total
Fatalities	486	849	846	822	603	3606
Per Day Rate	1.69	2.32	2.32	2.25	3.21	2.3

Note 3.1: Both 2003 and 2007 are partial years. The per day rates reflect the actual war days.

Chronic Rate Indicator (Two Year Moving Average)	Biannual Rate / Day	Annualized Rate
01-Mar-05 through 28-Feb-07	2.28	833.
08-Jul-05 through 07-Jul-07	2.54	927.5
Net Change	0.26	94.5
The indicator has been increasing	since	20-Jun-07

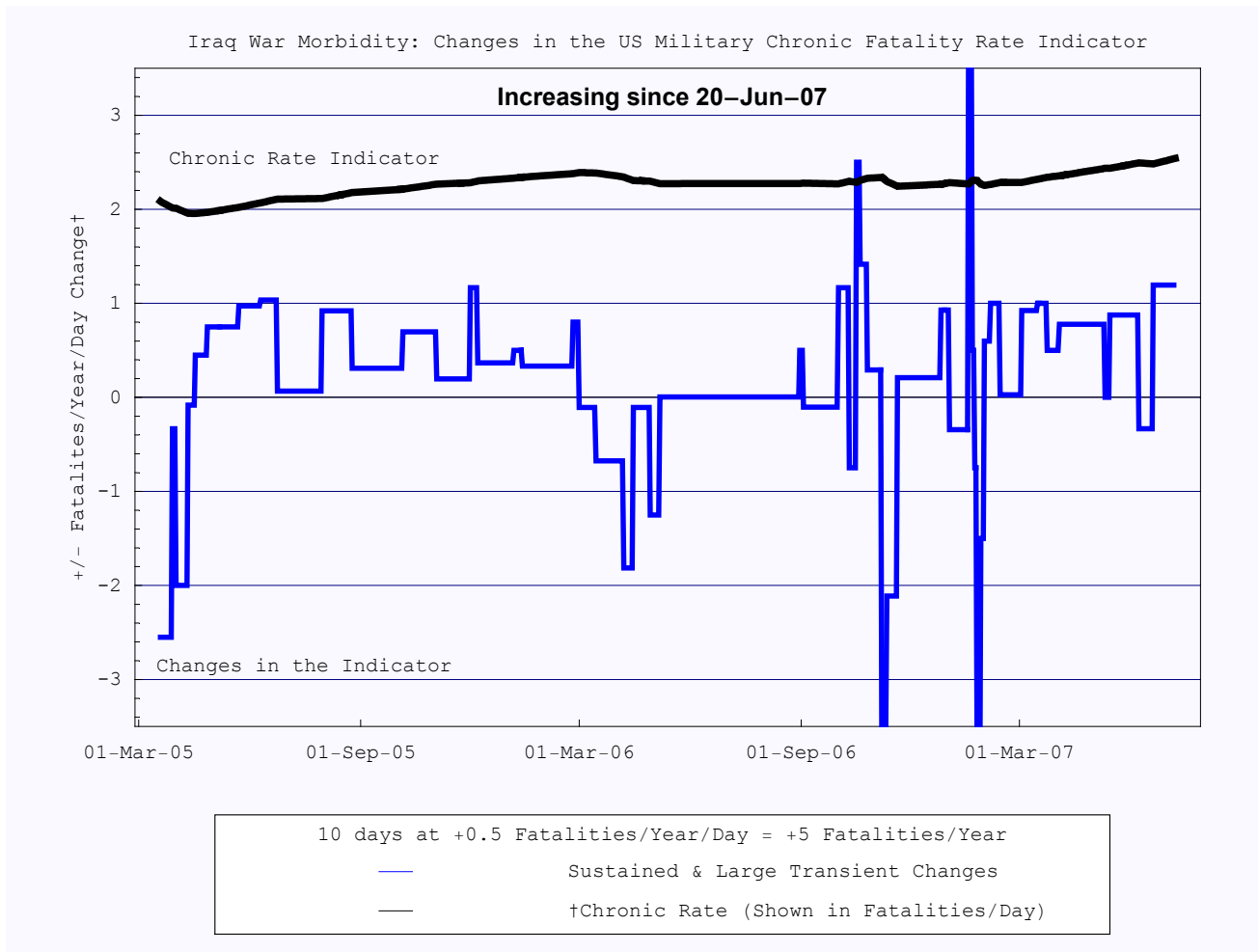Note 3.2: The 'Surge' began 01-Mar-07. The last day on record is 07-Jul-07. Report Created 11-Jul-07. In general, a sustained net change implies a lasting change in the hostilities. No change is 'normal'.

Iraq War Morbidity: US Military Fatalities

Historical Changes in the Chronic Fatality Rate Indicator

Iraq War Morbidity: Changes in the US Military Chronic Fatality Rate Indicator

Increasing since 20−Jun−07

Chronic Rate Indicator

Changes in the Indicator

+/- Fatalites/Year/Day Change†

01-Mar-05   01-Sep-05   01-Mar-06   01-Sep-06   01-Mar-07

10 days at +0.5 Fatalities/Year/Day = +5 Fatalities/Year

——— Sustained & Large Transient Changes

——— †Chronic Rate (Shown in Fatalities/Day)

Note 4.1: Sustained periods of change mark a fundamental change in intensity of the conflict. Large transients are shifts in one direction that are soon followed by a shift that cancels the change. The last day on record is 07-Jul-07. Report Created 11-Jul-07.

Note 4.2: The shifts in the sustained and large transient changes line reflect differences involving a particular period and the same period two years ago. For example, the -2 change rate in March 2005 primarily reflects the elimination of the high fatality invasion days from the moving average.

Note 4.3: Most importantly, notice that the chronic rate indicator does not fluctuate wildly. This makes it a reliable indicator of change. Also notice that the chronic rate steadily increases through most of 2005, is fairly constant during much of 2006, and begins to climb steadily in 2007.

Note 4.4: The fluctuations around the primary season and national election are unusual and can not be attributed to chance.